

a, b. ♀ ad. Los Ynglases, Ajó. Oct. 3, 1908.

Irides dark brown; bill dark olive-brown, lower mandible marked with yellow; legs and toes dark ash-coloured.

Both specimens are moulting on the body and tail.

This Duck is not commonly observed in the Ajó district, where it frequents the open water surrounded by reeds. On being alarmed it dives after the manner of a Grebe, and I have never seen it take to the wing.

When swimming, the tail is held upright and the body lies very low in the water, which almost closes over the shoulders.

[To be continued.]

X.—*On recently described Paradiseidæ, with Notes on some other new Species.* By WALTER ROTHSCHILD, Ph.D., M.B.O.U.

(Plates V. & VI.)

SINCE the appearance in 1898 of my "*Paradiseidæ*" in 'Das Tierreich,' there have been described sixteen new species and subspecies of Birds of Paradise; of these one, in my opinion, is a hybrid, which would thus leave fifteen new species and subspecies.

This continual stream of new forms of *Paradiseidæ* shews that we have very little final knowledge of the avifauna of huge tracts of that wonderful island New Guinea.

Before the publication of my "*Paradiseidæ*" we knew the eggs of only sixteen Birds of Paradise, viz., *Ptilonorhynchus violaceus* (1889), *Ælurædus melanotis maculosus* (1895), *Æ. viridis* (1889), *Chlamydera maculata* (1889), *C. nuchalis orientalis* (1897), *C. cerviniventris* (1895), *Sericulus chrysocephalus* (1889), *Ptilorhis paradisea paradisea* (1897), *P. p. victoriæ* (1890), *P. magnifica alberti* (1897), *Paradisea apoda apoda* (1884), *P. a. augustæ-victoriæ* (1897), *P. a. raggiana* (1883), *Manucodia atra atra* (1897), *M. a. altera* (1897), and *M. comrii* (1893).

The following is a list of species and subspecies of which we now know the eggs; those marked with an * are in the

Tring Museum and, with the exception of the first, have been figured in 'Novitates Zoologicae,' vol. xvii. pl. x. (1910)* :—

- **Ptilonorhynchus violaceus* (*Vieill.*).
- Ælurœdus viridis* (*Lath.*).
- * " *melanotis maculosus* *Rams.*
- * " *buccoides geislerorum* *Meyer.*
- **Scenopœetes dentirostris* (*Rams.*).
- **Chlamydera cerviniventris* *Gould.*
- * " *maculata maculata* (*Gould.*).
- " " *guttata* *Gould.*
- * " *nuchalis nuchalis* (*Jard. & Selby.*).
- " " *orientalis* *Gould.*
- Sericulus chrysocephalus* (*Lewin.*).
- **Prionodura newtoniana* *de Vis.*
- **Parotia sefilata lawesi* *Rams.*
- **Lophorina superba minor* *Rams.*
- **Ptilorhis magna intercedens* *Sharpe.*
- " " *alberti* *Elliot.*
- " " *magnifica* (*Vieill.*).
- * " *paradisea victoriae* *Gould.*
- **Seleucides ignotus* (*Forst.*).
- **Astrapia stephaniæ* (*Finsch & Meyer.*).
- Paradisea apoda apoda* *Linn.*
- * " " *raggiana* *ScL.*
- * " " *augustæ-victoriae* *Cab.*
- * " *rudolphi* (*Finsch.*).
- * " *minor minor* *Shaw.*
- * " " *finschi* *A. B. Meyer.*
- Manucodia atra atra* (*Less.*).
- * " " *altera* *Rothsch. & Hart.*
- * " *chalybata orientalis* *Salvad.*
- * " " *comrii* *ScL.*
- **Phonygammus keraudreni jamesi* *Sharpe.*
- " " " *gouldi* (*Gray.*).
- Lycocorax pyrrhopterus obiensis* *Bernst.*

In this article, as the result of closer examination of the various *Paradiseidæ*, I have united a number of forms in the various genera as SUBSPECIES. I repeat here my reason for doing this in many families of birds. If a form replaces another geographically, but structurally and otherwise

* Since this was written nests and eggs of *Astrapia rothschildi* Foerst. and *Paradisea guillemi* Cab. have been received at Tring.

shews no important differences, I regard it as only sub-specifically distinct. If, on the other hand, a form, however closely allied to another, occurs in the same geographical area with it, I consider it a distinct species. In the case of *Paradisea apoda* and its allies I may be accused of inconsistency in not also treating *P. minor* and *P. decora* as subspecies, but I consider that I am right for the following reasons: while *P. apoda*, *P. novæ guineæ*, *P. raggiana*, *P. intermedia*, *P. granti*, and *P. augustæ-victoriæ* replace one another absolutely geographically, have the same structure, and intergrade completely in colour, *P. minor* occurs in the same geographical area as *P. augustæ-victoriæ*, and the ornamental flank-plumes have a different structure, the barbules being wider and closer together, so that the feathers are less disintegrated and silkier in appearance. As regards *P. decora*, it is true that it has a separate geographical area, but the ornamental flank-plumes are totally different in structure and the female is so different that its specific distinctness is incontestable. All the other forms in various genera which I have placed as subspecies replace one another geographically and do not present structural differences.

In my "*Paradiseidæ*" in the 'Tierreich' I united all the forms of *Diphyllodes*, with the exception of *D. gulielmi-tertii*, as one very variable species. I have since got more material and, after a careful examination, have come to the conclusion that *Diphyllodes magnificus* should be separated into three subspecies as follows:—

Diphyllodes magnificus magnificus (Penn.).

Inner secondaries clay-colour.—ARFAK PENINSULA.

Diphyllodes magnificus chrysopterus Gould.

Inner secondaries orange, head greyish brown.—JOBI ISLAND AND THE OPPOSITE COAST, EAST OF GEELVINK BAY.

Diphyllodes magnificus hunsteini Finsch & Meyer.

Inner secondaries orange, head rufous.—GERMAN AND BRITISH NEW GUINEA.

In the 'Tierreich' I also united *Chlamydera nuchalis* and *C. orientalis* as identical, being misled by some wrongly labelled specimens; they are, however, confined to different areas of the Australian continent and should stand as subspecies thus:—

Chlamydera nuchalis nuchalis (Jard. & Selby).—Northern and North-west Australia.

Chlamydera nuchalis orientalis Gould.—Queensland.

Since 1898 I have received specimens of *Diphyllodes gulielmi-tertii* from German New Guinea and British New Guinea. They were shot respectively between Bongu and Stephansort, and in the Owen Stanley Mountains.

These are the first properly localised specimens known, as all the others were skins traded out of Dutch New Guinea. The British New Guinea bird has the belly whiter than any others that I have yet seen, but, as the specimens all vary *inter se*, I do not venture to separate it until more examples come from there.

I also have received the second known specimen of *Paryphophorus duivenbodæi* from British New Guinea. This was brought home by Mr. A. E. Pratt, who stated that it was killed at Foula, 4000 ft. in the mountains between the Aroa and St. Joseph's Rivers in British New Guinea.

Dr. Sharpe, in the 'History of the Collections in the Natural History Museum' (vol. ii. p. 131), has proved that Latham's *Turdus melinus* was not *Sericulus melinus* auct., but a *Sphecotheses*; therefore the correct name for the Regent Bird is *Sericulus chrysocephalus* (Lewin).

Dr. Lorenz has at last obtained perfect skins of *Xanthomelus aureus ardens* Alb. & Salvad., and it proves more different from *X. aureus aureus* than I thought, owing to the want of the black throat. I still, however, consider it to be only the geographical representative of *X. a. aureus*, as it does not differ structurally.

Paradisea rudolphi hunti (Le Souëf) is merely a synonym of *P. rudolphi*, as I have specimens from the typical locality

which have even more extended blue apices to the central rectrices, and the shorter flank-plumes are a sign of youth.

The adult and young males of *Drepanornis albertisi geisleri* Meyer have now been procured. The female alone was known up to 1909.

The young male differs from the female in having fainter bars on the flanks and abdomen, while the adult male differs from *D. albertisi albertisi* in being darker above and below, and in being more olive and less rufous on the wings.

Herr Nehr Korn has described an egg as being that of *Amblyornis inornatus*, and I have described one as that of *Cnemophilus macgregori*, but both are more than doubtful.

I now give descriptions of the new species and subspecies published since 1898, and a complete revised list of all the known Birds of Paradise.

AMBLYORNIS SUBALARIS GERMANUS.

Amblyornis subalaris germanus Rothsch. Bull. B. O. C. xxvii. p. 13 (1910).

♀ *ad.* Slightly darker and more rufescent than the female of *A. subalaris subalaris*, the feathers of the throat being uniform, while in the latter they have a paler median line and dark brown edges.

Wing 128 mm.; tail circa 90 mm.; culmen 28 mm.; metatarsus 38 mm.

Crest of male similar to that of *A. s. subalaris*.

Habitat. Rawlinson Mts., German New Guinea.

PAROTIA CAROLÆ MEEKI.

Parotia carolæ meeki Rothschild, Bull. B. O. C. xxvii. p. 35 (1910).

♂ *immat.* An immature male with fully developed head-plumage differs from *P. c. berlepschi* in having the sides of the crest broadly edged with white from the base of the bill to above the eye, and from *P. c. carolæ* in having the chin as well as the upper half and sides of the throat black instead of buff, while in *P. c. berlepschi* the whole throat is black.

♀ *ad.* Similar to that of *P. c. carolæ*, but the crown and



H. Grönvold del. et lith.

West, Newman imp

PAROTIA DUIVENBODEI ♂.

the middle of the forehead of a different shade of grey and more uniform.

Habitat. 'Letakwa' River, Dutch New Guinea, 2000–2500 feet. Collected by A. S. Meek.

PAROTIA DUIVENBODEI. (Plate V.)

Parotia duivenbodei Rothsch. Bull. B. O. C. x. p. 100 (1900).

♂ *ad.* Pectoral shield of a different shape, structure, and colour and more extended than in *P. helenæ*, *P. sefilata*, or *P. lawesi*. The shield, in fact, consists of a much larger number of rows of smaller, narrower, and more scutellate feathers, which give it a rougher appearance. The ruff-like development on the sides of the neck does not extend so far across the throat, in consequence of which the metallic feathers of the pectoral shield reach further upon the throat, gradually diminishing in size and number. The black central shaft-patches on the lower laterals of the shield are considerably narrower and much less numerous. The colour of the pectoral shield is a glittering metallic grass-green, with some of the feathers on the edges of the shield washed and edged with blue, whereas in the three allied species the shield is of a brilliant coppery greenish-golden colour. There is no long erect tuft on the forehead, and the crest on the front part of the head is in the form of a low cushion. The glittering occipital band of the several allied species is replaced by a large, triangular, rather wedge-shaped, shield of glittering metallic steel-green feathers, the shield being edged with steel-blue and extending from between the eyes to the occiput. There is one long head-plume on each side, and the dark feathers on each side of the head-shield from behind the eyes are lengthened so as to form horns somewhat like those in the genus *Phonygammus*. There is no white anywhere on the head, and the colour of this part and the whole of the rest of the upper surface is of a rich deep bronzy purple, nor glossed with oily brown as in the allied forms. The first and second primaries are less abruptly emarginate than in the nearly related species.

Wing 150 mm.; tail 115 mm.; metatarsus 38 mm.; culmen 34 mm.

Habitat. Dutch New Guinea (*Van Renesse van Duivenbode*).

Note.—In all the other six forms of *PAROTIA* there are six elongated head-plumes, but there is no sign of any having been pulled or shot out in the type of this species. A second specimen was received by the Paris Museum in 1910, but that has all the head-plumes wanting, so that there is still no certain evidence of the real number of head-plumes in *P. duivenbodei*.

PAROTIA WAHNESI. (Plate VI.)

Parotia wahnesi Rothsch., Foerster & Rothschild, Two new Birds of Paradise, p. 2 (1906).

♂ *ad.* Differs from *P. helenæ* at first sight by having the whole of the frontal crest composed of curled feathers broadly tipped with bronzy gold, not straight and entirely bronze-black as in *P. helenæ*. In the latter species only the short feathers at the base of the culmen are tipped with golden bronze. The most striking difference, however, lies in the tails of the two species: in *P. wahnesi* the tail is more than double the length of the tail in *P. helenæ*, and is graduated and wedge-shaped, as opposed to the square even tail of the latter.

Wing 156–165 mm.; tail 212–217 mm.; culmen 28–30 mm.; metatarsus 51–54 mm.

♀ *ad.* Differs from the female of *P. helenæ* in the much brighter reddish-chestnut colour of the upper surface, and the more rufous tone of the under parts. Feathers of the hind-neck heavily barred with black. Interscapulium, back, and rump more faintly vermiculated with black, while the whole upper parts in *P. helenæ* are uniform umber-brown. Wings and tail rufous chestnut instead of umber-brown.

Wing circa 156 mm.; tail 178 mm.; culmen 25 mm.; metatarsus 52 mm.

Habitat. Rawlinson Mts., German New Guinea (*Wahnes coll.*).



H. Grönvold del. et lith.

West, Newman imp.

PAROTIA WAHNESI ♂ & ♀.

LOPHORINA SUPERBA LATIPENNIS.

Lophorina minor latipennis Rothsch. Bull. B. O. C. xix. p. 92 (1907).

♂ *ad.* Differs from the male of *L. minor minor* from British New Guinea in having the long lateral plumes of the pectoral shield slightly longer and distinctly wider.

Habitat. Rawlinson Mountains, German New Guinea.

GENUS LOBORHAMPHUS.

Allied to *Lamprothorax*. Differs from that genus in having longer pectoral tufts which are more curved, in having a much less developed nuchal frill, and in having two yellow fleshy lobes or folds on the basal third of the bill, forming two wattles on each side. The tail is graduated and like that of an *Astrapia*, not short and square with the two central feathers elongated and narrow.

Two species: *L. nobilis* Rothsch. and *L. ptilorhis* Sharpe.

LOBORHAMPHUS NOBILIS.

Loborhamphus nobilis Rothsch. Bull. B. O. C. xii. p. 34 (1901); Rothsch. & Hartert, Notes on Papuan Birds, Novit. Zool. x. pp. 65, 72, 89, pl. i.

♂ *ad.* Crown metallic purple; neck, back, and rump velvety black with a strong bronze gloss. Wings and tail black with a purple sheen on the exposed webs. Sides of the neck and head coppery bronze. Chin and throat dark bronzy green. Pectoral shield glittering purple with metallic-blue reflexion. Some of the feathers of the lateral tufts have a metallic-blue border. Below the pectoral shield is an ill-defined wide bronze-green band. Rest of under surface black with a strong wash of purple.

Wing 165 mm.; tail 154 mm., lateral pair of tail-feathers 105 mm.; bill from gape 37 mm.; culmen 32 mm.; metatarsus 44 mm.

Habitat. Dutch New Guinea (*Van Renesse van Duivenbode*).

LOBORHAMPHUS PTILORHIS.

Laborhamphus ptilorhis Sharpe, Bull. B. O. C. xxi. p. 67; id. Hand-l. B. v. p. 575.

♂ *ad.* Velvety black, strongly washed with coppery purple. The crown metallic, slightly paler, but otherwise uniform with the back. Nasal plumes thick and velvety; sides of the head of the same colour as crown. Chin oily green. Pectoral shield mostly reddish purple, but with some of the feathers bordered with steel-green. Rest of under side velvety black. Base of bill with yellow wattles.

Wing 178.5 mm.; tail 155 mm.; culmen 37.5 mm.; metatarsus 42.5 mm.

Habitat. Dutch New Guinea.

LANTHOTHORAX MIRABILIS (Reichen.).

Paradisea mirabilis Reichenow, Orn. Monatsb. ix. p. 186 (1901); Journ. f. Orn. 1902, pl. i.

Ianthothorax mirabilis Rothsch. Bull. B. O. C. xiii. p. 31 (1903).

♂ *ad.* Head, occiput, chin, throat, and sides of head and throat covered with a thick mass of close, small, velvety, scale-like feathers, glittering steel-blue; hind-neck, interscapulum, and upper back blackish steel-blue. Lower two-thirds of back and upper tail-coverts liver-brown intermixed with blackish; tail sooty black-brown, outer webs saturated and washed with steel-blue, central rectrices narrow and pointed, about one inch longer than the rest, bright steel-blue. Quills deep brown, rest of wings and upper wing-coverts liver-brown intermixed with brownish black. Breast and upper abdomen deep velvety purplish brown, flanks paler; lower abdomen yellowish grey, streaked with purple-brown. Elongated flank-plumes yellowish grey, washed with pale clay-brown.

Wing 185–195 mm.; tail without central rectrices 130 mm., central rectrices 155 mm.; elongated flank-plumes exceed central rectrices by 211 mm.; culmen 46 mm.; metatarsus 50 mm.

Habitat. German and Dutch New Guinea.

The description is taken from the type, which, together with the only other known skin, is in the Tring Museum. The type has the two central rectrices missing, but these are present in the second example—a legless, flat, Arfak skin. The latter only differs from the type in having the five pairs of outer rectrices much paler brown, only glossed with steel-blue. As, however, this gloss is confined to one side of the tail, it shews the bird to be less adult than the type, and so I cannot attribute the paler tail to anything but youth. Prof. Reichenow has described this bird under the generic appellation of *Paradisea*, and has stated that it is probably a hybrid between *Paradisea minor* and *Seleucidés ignotus*!

Genus NEOPARADISEA.

Central tail-feathers intermediate between those of *Paradisea* and *Diphyllodes*; outer webs longest and green, curved downwards as in *Paradisea*, not inwards and crossed as in *Diphyllodes*. Bill as in *Diphyllodes*, but nostrils larger and covered by nasal plumes, though less so than in *Diphyllodes*. First primary short and pointed, second twice as long as the first, fourth primary longest, not fifth as in most other *Paradiseidæ*. Feathers on head and neck as in *Paradisea*. Flank-plumes short, not reaching to the end of primaries, but of the same structure as in *Paradisea*.

One species: *N. ruysi* Van Oort.

Note.—The short flank-plumes denote a certain relationship to *Ianthothorax*.

Mr. Van Oort considers the type of *N. ruysi* immature, but in view of the singularly immature appearance of perfectly adult specimens of *Lamprothorax* and *Ianthothorax*, it is quite clear to my mind that the bird is fully adult.

NEOPARADISEA RUYSI Van Oort.

Neoparadisea ruysi Van Oort, Notes Leyd. Mus. xxviii. p. 129 (1906-07).

♂ *ad.* Chin and throat black with purplish-green gloss; fore-neck and breast blackish brown with a purplish-blue gloss, each feather of the breast fan-shaped at its apex,

brownish with metallic purplish-blue margin; belly and under tail-coverts blackish brown, the feathers of the latter with pale centres. On the flanks are tufts of loose ornamental plumes, sooty brown with the barbs of the anterior portions whitish brown; these ornamental flank-plumes do not reach end of wing. Forehead greenish black; head and neck covered with short, dense, pile-like feathers, brownish yellow margined with greenish black. Hind-neck and back bright orange-brown; rump and upper tail-coverts olive-brown; tail fuscous brown with a purple gloss. Wings dusky brown glossed with purple; outer web of quills with broad orange-brown margins, inner webs with sandy-yellow edges.

Wing 150 mm.; tail without central feathers 90 mm., central tail-feathers 360 mm.; metatarsus 42 mm.

Habitat. Warsembo, west coast of Geelvink Bay, Dutch New Guinea.

SELEUCIDES IGNOTUS AURIPENNIS.

Seleucides ignotus auripennis Schlüter, Falco, 1911, p. 2.

♂ *ad.* Differs from that of *S. ignotus ignotus* in having a shorter wing and slenderer shorter bill; the lateral plumes are deeper and more golden yellow, and the green edges to the lateral feathers of the breast-shield are wider.

♀ *ad.* and ♂ *juv.* Differ from those of *S. ignotus ignotus* in having the under side darker brown, the blackish-brown bars blacker and closer together, wing and bill shorter.

Habitat. German New Guinea and North coast of Dutch New Guinea east of the Ambernok River.

GENUS PSEUDASTRAPIA.

Tail as in *Falcinellus*, but shorter, stiffer, and straighter; bill almost straight as in *Astrapia*, not long and sickle-shaped; feathering of forehead continued along the bill and concealing the nostrils; a light-coloured (yellow) fleshy lobe or wattle above and below the angle of the gape.

Two species: *P. lobata* Rothsch. and *P. ellioti* (Ward).

Note.—On re-examining the type of *P. ellioti* I found that it had the short, almost straight bill and the wattled gape

of *Pseudastrapia* as well as the shorter and stiffer tail, and so it must be taken out of the genus *Falcinellus* and placed in the above-mentioned genus.

1. PSEUDASTRAPIA LOBATA.

Pseudastrapia lobata Rothschild, Bull. B. O. C. xxi. p. 25 (1907).

♂ *immat.* General colour dull black ; forehead with bottle-green gloss ; the elongated middle rectrices with a metallic steel-blue gloss as in *Falcinellus meyeri*, and drawn out into long, narrow points, not abruptly cuneate as in *Pseudastrapia ellioti*. Bill and feet black. The wattles at the gape appear to have been pale yellow, not orange as in *P. ellioti*.

Wing 187 mm. ; middle rectrices 395, lateral rectrices 122 mm. ; culmen 42 mm. ; metatarsus 46 mm.

Habitat. Dutch New Guinea.

2. PSEUDASTRAPIA ELLIOTI (Ward).

Epimachus ellioti Ward, P. Z. S. 1873, p. 742 ; Elliot, Monogr. Parad. pl. xx. (1873) ; Sharpe, Cat. B. Brit. Mus. iii. p. 163 (1877) ; Gould, B. New Guinea, i. pl. viii. (1880) ; Sharpe, Monogr. Parad. pl. xvi. (1896) ; Meyer, Ibis, ii. (6) p. 418 (1890).

Falcinellus ellioti Rothschild. Das Tierreich, Aves, Lief. ii. p. 29 (1898).

ASTRAPIA ROTHSCHILDI.

Astrapia rothschildi Foerster & Rothschild, Two new Birds of Paradise, p. 2 (1906).

♂ *ad.* Similar to *A. nigra*, but the metallic border to the breast-shield is more fiery red and only reaches to the upper edge of the shield, NOT, as in *A. nigra*, to below the eye. The postocular black fan-shaped tufts of *A. nigra* are absent in the present species. The lunated flank-feathers have a narrow subterminal metallic-coppery band, followed by a terminal green one, NOT a broader entirely green terminal band as in *A. nigra*. The feathers on the hind-neck and lower nape appear duller in colour, each feather having a subterminal glittering green band followed by a terminal

band of purplish bronze, while in *A. nigra* these feathers have a broad terminal band of glittering green. Breast-shield, head, and throat glossed with bright greenish steel-blue instead of purple.

Wing 182–191 mm.; tail 430–485 mm.; culmen 38–39 mm.; metatarsus 44–46 mm.

♀ *ad.* Similar to *A. nigra*, but more black in colour, and the breast more extensively barred with vermiculate pale bars.

Wing 166 mm.; tail 250–290 mm.; culmen 38–39 mm.; metatarsus 43–45 mm.

Habitat. Rawlinson Mts., German New Guinea (*Wahnes coll.*).

Note.—It will strike many that I am inconsistent in not treating *Astrapia rothschildi* and *A. stephanie* as subspecies of *A. nigra*, but the structure of the plumage of the males is different, and though they undoubtedly represent one another geographically, I do not feel justified in uniting them as three subspecies.

CICINNURUS LYOGYRUS Currie.

Cicinnurus lyogyrus Currie, Proc. U.S. Nat. Mus. xxii. p. 497 (1900), Patria ignota.

Differs from *C. regius* (Linn.) in having the pectoral shield nearly four times as long as in the latter, it being almost as long as broad; frontal plumes shorter, not projecting forward beyond middle of bill and not obscuring the the contour of the skull; tail emarginate instead of rounded; outer web at end of central tail-shafts only two-thirds as wide near base, the width uniform for the greater part of its length, instead of narrowing rapidly to the tip, much more loosely coiled; the apical portion of the naked crossed tail-shafts divergent instead of convergent. The crimson of the back is darker; crown and forehead orange-vermilion, not orange-chrome; pectoral tufts smaller, darker, and sub-terminal buff line on each plume much narrower, darker, and less conspicuous; pectoral shield, except a narrow edging on lower border, and tips of central tail-feathers grass-green, not emerald-green, and the tips of the pectoral

plumes are narrowly tipped with yellowish emerald-green, not broadly tipped with golden green. Primaries of a duller orange-rufous.

Measurements given by the author :—

Wing 200 mm. (evident misprint for 100 mm.); tail without central tail-feathers 48 mm., tail with central feathers unrolled 330 mm.; culmen 42 mm.; metatarsus 50 mm.; middle toe 37 mm.

Through the kindness of the authorities of the U.S. National Museum, I have been able to examine the type of this species. The width of the green pectoral shield, the shape of the tail and middle rectrices, and the dark colour of the forehead (which is as dark as in *C. regius coccineiformis*), are very striking characters, and it is a great pity that the locality whence this bird came is unknown. By some curious mistake most of the measurements in the description are wrong. The wing measures 102, and not 200, the tail with the central feathers unrolled 167, and not 300, the culmen 22, and the metatarsus 30 mm.

Habitat. Unknown.

CICINNURUS GOODFELLOWI Grant.

Cicinnurus goodfellowi Grant, Bull. B. O. C. xix. p. 39 (1907).

Differs from *C. lyogyrus* in having the upper parts of a bright orange-crimson, paler than in *C. regius*; chin and upper parts of the throat orange-red, shading into dull crimson with purple reflexions on the lower throat and fore-neck; in lacking all trace of the buff tips to the feathers of the fore-neck, which in *C. lyogyrus* and *C. regius* form a marked convex line dividing the dull crimson of the fore-neck from the green of the upper breast; and in having the flank-feathers dark sooty brown glossed with coppery purple. Iris dark brown; bill yellow; feet dark cobalt-blue.

Culmen 27·5 mm.; wing 102·5; central tail-feathers 190 mm.; metatarsus 32·5 mm.

Habitat. Cyclops Mts., 3000 ft., Humboldt Bay, Dutch New Guinea.

Note.—In my opinion this bird is nothing more than

a hybrid between *Ciccinnurus regius* and *Diphyllodes guillemi-terti*. It is exactly intermediate as regards tail, breast-shield, and flanks.

PARADISEA APODA GRANTI North.

Paradisea granti North, Vict. Nat. xxii. p. 147 (1906).

♂ *ad.* Intermediate between *P. a. intermedia* and *P. a. augustæ-victoriæ*.

Above rich straw-colour; sides of lower back vinous brown; scapulars and lesser wing-coverts vinous brown, with an ashy shade and washed with straw-colour; median coverts rich straw-colour; greater coverts and quills chestnut-brown washed with straw-colour; tail chestnut-brown, the two central feathers elongated, and similar in the terminal portion to *P. intermedia*; crown of head, neck, and a broad collar on lower throat rich straw-yellow; base of forehead, lores, cheeks, and throat metallic green; chin velvety black glossed with dull metallic green; fore-neck and upper breast very dark vinous brown, the plumage like rich velvet pile as in *P. augustæ-victoriæ*; remainder of under surface, thighs, and under tail-coverts vinous brown; elongated flank-plumes reddish orange, gradually becoming paler till the elongated tips are orange-white, the shorter side-plumes being mixed with some feathers tipped with blood-red. Bill bluish horn-coloured; legs and feet (in skin) brown.

Wing 175 mm.; tail without central rectrices 150 mm., central rectrices 500 mm.; flank-plumes 475 mm.; culmen 35 mm.; metatarsus 40 mm.

Habitat. South-East German New Guinea?

MANUCODIA ATRA ALTERA Rothsch. & Hartert.

Manucodia ater altera Rothschild & Hartert, Novit. Zool. x. pp. 84, 85 (1903).

M. atra altera differs from *M. atra atra* in having the head less greenish, the bill much stouter and higher and generally longer, and the wing much longer.

Wing: *M. a. atra*, 168–188 mm.; *M. a. altera*, 193–206 mm. Culmen: *M. a. atra*, 35–40 mm.; *M. a. altera*, 40–44 mm.

Habitat. *M. atra atra* : Dutch and German New Guinea, Waigiou, Batanta, Salwatty, &c.

M. atra altera : Aru Islands, British New Guinea, and the Eastern Papuan Islands.

MANUCODIA CHALYBATA ORIENTALIS Salvad.

Manucodia orientalis Salvad. Ann. Mus. Civ. Gen. (2) xvi. p. 103 (1896).

Manucodia chalybata orientalis Rothschild & Hartert, Novit. Zool. x. p. 85 (1903).

Differs from *M. chalybata chalybata* in its much smaller size and smaller beak.

Habitat. German and British New Guinea.

Note.—This subspecies was accidentally omitted from my “*Paradiseidæ.*”

Complete List of the Paradiseidæ.

1. Ptilonorhynchus violaceus (*Vieill.*).
2. Ælurædus viridis (*Lath.*).
3. ” melanotis melanotis (*G. R. Gray.*)
- 3 a. * ” ” arfakianus *A. B. Meyer.*
- 3 b. ** ” ” melanocephalus *Rams.*
- 3 c. ” ” maculosus *Rams.*
4. * ” buccoides buccoides (*Temm.*).
- 4 a. ***?? ” ” geislerorum *A. B. Meyer.*
- 4 b. ** ” ” stonei *Sharpe.*
5. Scenopœetes dentirostris *Rams.*
6. ***?? Chlamydera cerviniventris *J. Gould.*
7. ***? ” lauterbachi *Reichenow.*
8. ” maculata maculata (*J. Gould.*)
- 8 a. ” ” guttata *J. Gould.*
9. ” ” nuchalis nuchalis (*Jard. & Selby.*)
- 9 a. ” ” orientalis *J. Gould.*
10. * Xanthomelus aureus aureus (*Linn.*).
- 10 a. ***?? ” ” ardens *Alb. & Salvad.*
11. ***? Amblyornis inornatus (*Schl.*).
12. ** ” subalaris subalaris *Sharpe.*
- 12 a. *** ” ” germanus *Rothsch.*
13. *? ” flavifrons *Rothsch.*
14. Sericultus chrysocephalus (*Lewin.*)
15. Prionodura newtoniana *de Vis.*
16. *! Loboparadisea sericea *Rothsch.*
17. ** Cnemophilus macgregori *de Vis.*
18. ** Loria lorix *Salvad.*

19. * *Paradigalla carunculata* Less.
 20. ** *Macgregoria pulchra* de Vis.
 21. * *Parotia sefilata sefilata* (Penn.).
 21 a. ** " " lawesi Rams.
 21 b. ** " " helenæ de Vis.
 22. *** " wahnesi Rothsch.
 23. * " carolæ carolæ A. B. Meyer.
 23 a. * " " berlepschi Kleinschm.
 23 b. * " " meeki Rothsch.
 24. * " duivenbodei Rothsch.
 25. * *Lophorina superba superba* (Penn.).
 25 a. ** " " minor Rams.
 25 b. *** " " latipennis Rothsch.
 26. * *Pteridophora alberti* A. B. Meyer.
 27. *! *Lamprothorax wilhelminae* A. B. Meyer.
 28. *? *Ianthothorax bensbachi* Büttikofer.
 29. ***?° " mirabilis (Reichenow).
 30. *° *Loborhamphus nobilis* Rothsch.
 31. *? " ptilorhis Sharpe.
 32. *? *Neoparadisea ruysi* Van Oort.
 33. ***° *Paryphophorus duivenbodei* (A. B. Meyer).
 34. *Ptilorhis paradisea paradisea* Sw.
 34 a. " " victoriae J. Gould.
 35. * " mantoui (Oust.).
 36. ***? " magnifica magnifica (Vieill.).
 36 a. ** " " intercedens Sharpe.
 36 b. " " alberti Elliot.
 37. * *Drepanornis albertisi albertisi* (Schl.).
 37 a. ** " " cervinicauda Schl.
 37 b. *** " " geisleri A. B. Meyer.
 38. * " bruijni Oust.
 39. ***?? *Seleucidus ignotus ignotus* (Forst.).
 39 a. " " auripennis Schlüt.
 40. *? *Falcinellus astrapioides* Rothsch.
 41. * " striatus striatus (Bodd.).
 41 a. ** " " meyeri (Finsch).
 42. *? *Pseudastrapia lobata* Rothsch.
 43. *° " ellioti (Ward).
 44. * *Astrapia nigra* (Gm.).
 45. *** " rothschildi Foerster.
 46. ** " stephanie (Finsch & Meyer).
 47. * " splendidissima Rothsch.
 48. * *Schlegelia wilsoni* (Cass.).
 49. ***?? *Cicinnurus regius regius* (Linn.).
 49 a. " " coccineifrons Rothsch.
 50. *? " lygyrus Currie.

51. *^p *Cicinnurus goodfellowi* Grant (= *Cicinnurus regius* × *Diphyllo-*
lodes gulielmi-tertii).
52. * *Diphylloides magnificus magnificus* (Penn.).
- 52 a. *^p " " *chrysopterus* J. Gould.
- 52 b. ***^p " " *hunsteini* A. B. Meyer.
53. ***^p " *gulielmi-tertii* A. B. Meyer.
54. *Semioptera wallacei wallacei* (G. R. Gray).
- 54 a. " " *halmaheræ* Salvad.
55. *Paradisea apoda apoda* Linn.
- 55 a. * " " *novæ guineæ* Alb. & Salvad.
- 55 b. *** " " *augustæ-victoriæ* Cab.
- 55 c. ***! " " *granti* North.
- 55 d. ** " " *intermedia* de Vis.
- 55 e. ** " " *raggjiana* ScL.
56. * " *minor minor* G. Shaw.
- 56 a. *** " " *finschi* A. B. Meyer.
- 56 b. " " *jobiensis* Rothsch.
57. " *decora* Salvin & Godm.
58. ***^o " *maria* Reichenow (= *Paradisea gulielmi* × *P. apoda*
augustæ-victoriæ).
59. *** " *gulielmi* Cab.
60. ** " *rudolphi* (Finsch).
61. " *rubra* Daud.
62. ***^p *Manucodia atra atra* (Less.).
- 62 a. " " *altera* Rothsch. & Hartert.
63. * " *chalybata chalybata* (Penn.).
- 63 a. ***^p " " *orientalis* Salvad.
- 63 b. " " *jobiensis* Salvad.
- 63 c. * " " *rubiensis* A. B. Meyer.
64. " *comrii* ScL.
65. * *Phonygammus keraudreni keraudreni* (Less. & Garnier).
- 65 a. " " *gouldi* (G. R. Gray).
- 65 b. ** " " *jamesi* Sharpe.
- 65 c. " " *hunsteini* Sharpe.
66. *Lycocorax pyrrhopterus pyrrhopterus* (Bp.).
- 66 a. " " *morotensis* Schl.
- 66 b. " " *obiensis* Bernst.

Note.—The species marked with ONE star come from Dutch, those with two stars from British, and those with THREE stars from German New Guinea. Those with NO star are from various adjacent islands or Australia. The addition to the stars of a query means known from unique specimen, of o from two specimens, and ! from three specimens. Where a form occurs in several places a double query follows the stars.